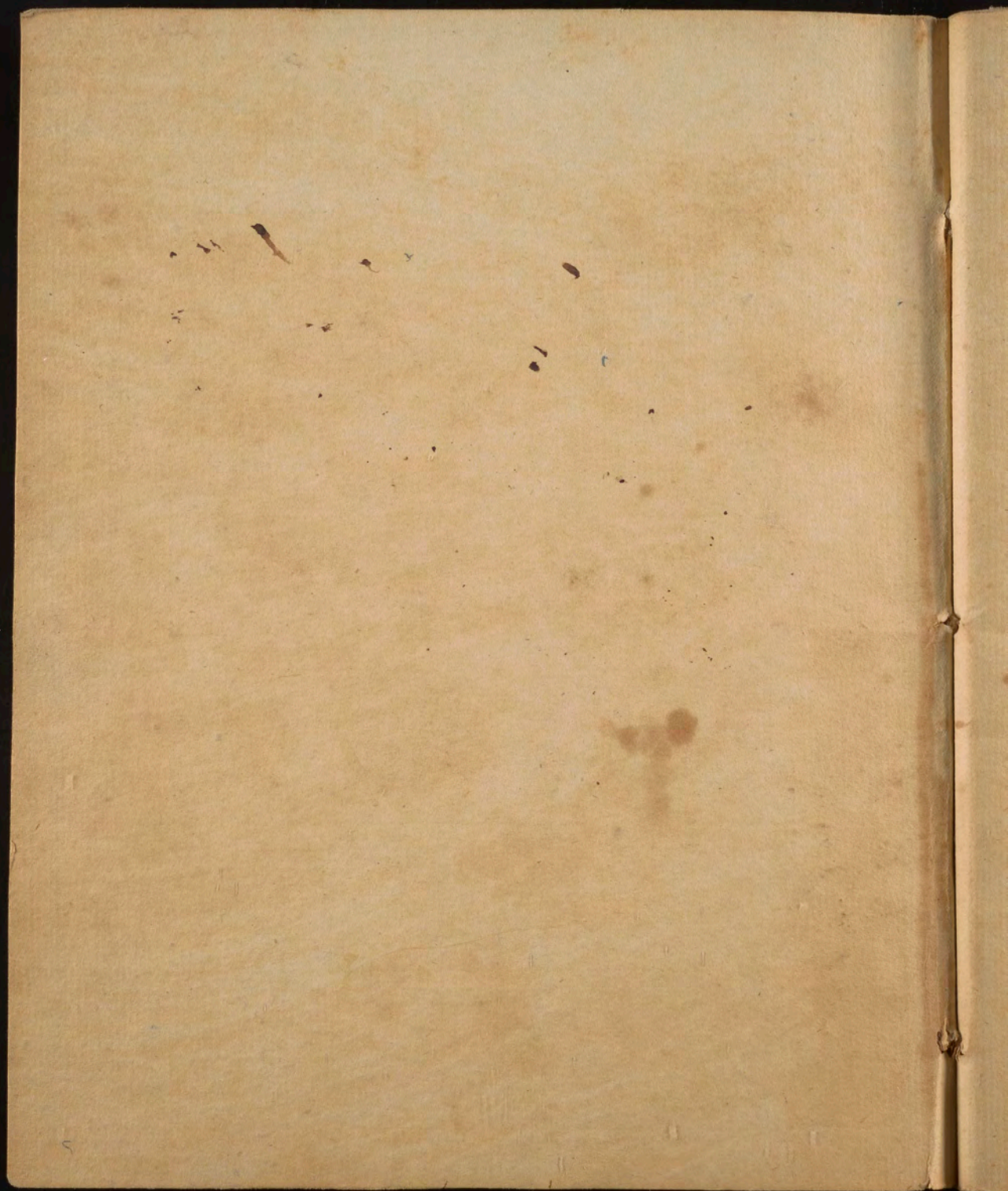


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## Lectures on Pathology.

next year 1808  
The Order - After impregnation  
relating effects as acts -  
- tions of Air being ~~infiltrations~~  
situation - ~~infiltration~~  
then ~~Change of D<sup>o</sup> 2<sup>o</sup> 3<sup>o</sup> 4<sup>o</sup>~~ medium of life  
(this crossed) & afterwards Change of  
situation in 12<sup>o</sup> 4<sup>o</sup> - then Epidemics  
afterwards - round - noon - thunder



✓ Labour or are in action. Where  
they sit still, or are unemployed.

✓ This singular source of the origin  
of fever was first pointed out by Dr  
Blane. He tells us that upon mixing  
the crews of Ships, or bringing recruits  
into the fleet, a fever of the typhus  
kind frequently followed. I have noted  
the <sup>great</sup> prevalence of this fever in the  
American Army in the year 1776  
in part to this cause. The Army was  
composed for the first time of Citizens  
<sup>drawn</sup> from nearly every State in the Union.  
[The Influenza in 1793 from French  
people from Domingo]



morbid when present 91

3 Low rapid vegetable diet.

4 putrid animal diet.

5 A scanty quantity of sound aliment.

6 Depression of Mind.

7 The mixture of <sup>strangers</sup> with each other &  
from the commingling of all these

causes of fever from human miasmata, or,  
it is easy to account for the greater  
frequency of this fever in the time  
of war than in the time of peace, for  
war brings exposure to the want of  
cleanliness to confinement in jails -  
in prison ships - or besieged towns - also  
to rapid - putrid & scanty aliment  
& lastly it brings a great many strangers  
together. -  
influence of Confinement in producing  
human miasmata, that soldiers  
acquire contract fevers from that



~ 30 Indians died in two years of  
the Camp fever in the Austrian  
Army in 1791. 2 -



canoe only by sleeping in their tents  
during a campaign. The Samovars and  
pestilence have often followed the foot-  
steps of war. The horses described  
them both as crouching, <sup>like a pair of hounds</sup> for camp  
- went as the feet of Caesar when <sup>he</sup> ~~was~~ <sup>girded</sup>  
forth on his sword. - The connection  
between them is a very natural  
one - for while war begets a want  
- rep<sup>on</sup> of provision by drawing men  
from agriculture - pestilence follows  
the operation of all the <sup>other</sup> causes of it  
which have been mentioned. ✓

Can a human body infect itself  
from an effluvia engendered within  
itself? I answer in the affirmative,  
and am fully satisfied that the



2  
~~V fever is propagated, by it is from  
this excretion, and by not a  
secreted matter as in the measles  
V small pox.~~

V 1 They are derived chiefly from  
vitiating perspirable matter. ~~It is possible~~ <sup>They</sup>  
the other excretions in a putrid state will  
certainly produce disease, but they are as much  
less frequent source of disease <sup>it</sup> than the per-  
spiration.

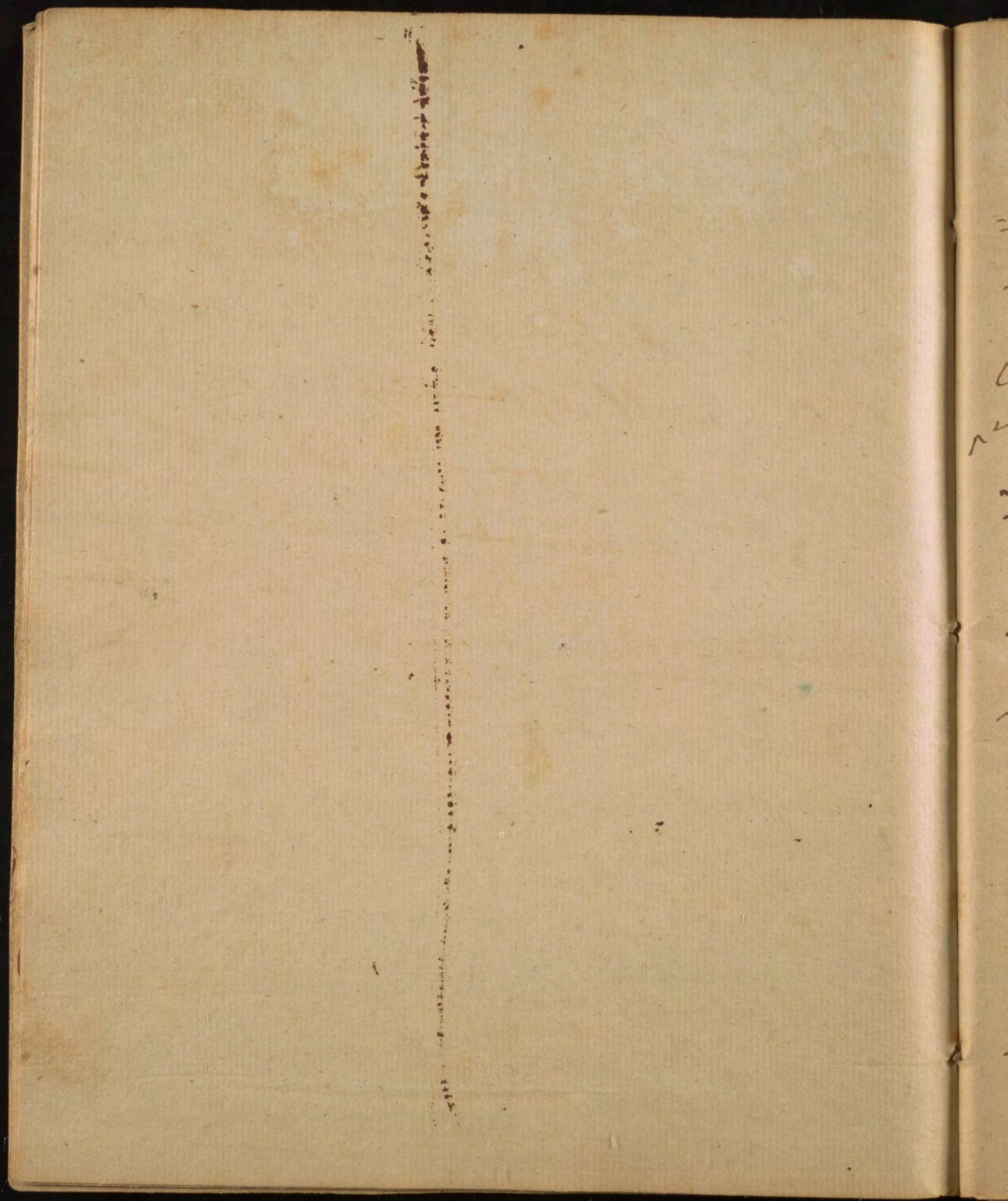


fluids stagnating from all the <sup>debilitating</sup> causes  
 that have been enumerated in the  
 extreme vessels which terminate in  
 the skin may be irritated, as to  
 become a direct stimulus to the  
 system and thus produce a true typhus  
 or jail fever. Where this

The following circumstances deserve  
 to be attended to in the history of <sup>human</sup> exhalations. V  
~~various~~

2 They are engendered more frequently,  
 and are more active in winter than  
 in summer. Of this I saw many  
 instances in our army & in military  
 hospitals during the late war. We  
 seldom saw a typhus in warm  
 weather when it was safe, and







agreeable to keep the doors & windows  
of our hospitals open. I well remem-  
ber that a most malignant typhus  
broke out in the house of employ<sup>ment</sup>:  
(which was then a military hospital)  
<sup>in this city</sup> in the month of ~~an~~ April in the  
year 1777. <sup>In the month</sup> As soon ~~as~~ <sup>as</sup> the month of May  
we opened ~~our~~ all the doors and  
windows of the hospital - and the  
fever nearly disappeared. - About  
the 20<sup>th</sup> of the month an unusual  
week  
~~much~~ of cool weather obliged us to  
shut our doors & windows - the  
consequence of <sup>which</sup> was, the fever re-  
-vived with fresh malignity, and  
carried off several persons among  
whom were <sup>two</sup> senior & junior surgeons,



11.11



[Dr Holmes & Dr Young] and one mate  
Mr Thompson - who belonged to the hos-  
pital. It affected at the same time  
(of New York)  
[Dr Rodgers, then a mate - myself - &  
almost every other Officer of  $\frac{1}{2}$  hospital.  
Dr Blane in his own essay on the means  
of preventing naval diseases mentions a  
fact of ~~a similar~~ <sup>which</sup> kind <sup>to</sup> the one I  
have related. He says that the ~~fact~~ <sup>Ship</sup>  
never always disappeared in Voyages  
to the from England to the West Indies,  
the nearer they approached the warm  
latitudes - and increased in Voyages  
back again - the nearer they ap-  
proached the <sup>cold &</sup> moist shores of Great  
Britain. - He accounts for it very  
justly by ascribing it to the disposition







which soldiers & sailors have to be upon  
deck in warm latitudes, which  
prevents the generation of  
~~exposed~~ <sup>when formed</sup> ~~inasmuch~~, as far as response  
there to be carried off by fresh air  
as fast as they are generated. ~~It~~ <sup>you</sup>  
Winter was ~~resided~~ <sup>was</sup> ~~two years~~ <sup>in America</sup> ~~and~~ <sup>by</sup>  
~~was~~ <sup>was</sup> ~~down a case of typhus~~ <sup>during that time</sup> ~~and~~  
~~a~~ <sup>circumstance</sup> in the history of  
the human mind which is worthy  
of our attention is, that it adheres to  
cloathing of all kinds - more especially  
to woollen and cotton - hence it is often  
preserved so as to produce a disease  
for days - weeks - and even months  
in apparel - and curtains. - I once  
knew a Sticking which has been worn  
by a man in a typhoid convey  
that disorder ~~cost~~  
it to one of his fellow servants  
who tried it ~~some~~ <sup>several</sup> ~~weeks~~ <sup>days</sup> ~~after~~ <sup>after</sup> his neck several  
days after it had been thrown aside,



Disease in these cases is communicable by  
~~but~~ the ~~contagion~~ <sup>here</sup> is from the excretions  
of the patients such as their breath, pers-  
piration, & stagnating urine, or faeces.  
It is a new form of putrid animal  
exhalation from dead matters, and differs  
totally from the septic contagions of  
the small pox & measles. ~~It perhaps~~  
~~the fact~~ ~~never~~ Happily contagion from excretion  
may be prevented. DeClerk's book. Letters from

✓ It is ~~it~~ was thus communicated by the  
prisoners who had it not at the old  
Bailey in London in 1750 to several  
of the bridges by <sup>Billings</sup> infected clothes.



I have heard of a convict in Maryland  
who came over to America in an in-  
fested ship, who nearly destroyed a  
whole family by <sup>taking</sup> ~~putting~~ wearing  
a coat or waistcoat out of his chest,  
and wearing it about the house <sup>three</sup>  
months after his being <sup>arrived by way</sup> ~~admitted~~  
in contact with the family. — But this  
is not all, — Dr. Mann remarks that we  
adhere to wood — and <sup>perhaps</sup> ~~even to~~ granite  
and brick walls. There was an instance  
of a wooden hospital at the Yellow  
Springs which <sup>retained these micro-organisms</sup> ~~infected a number of~~  
<sup>for with this fever</sup> ~~soldiers~~ <sup>after it had</sup>  
~~been exposed~~ so as to infect a num-  
ber of soldiers with a typhoid <sup>fever</sup>, who  
were admitted into it during the



X Dr Willan mentions an instance in <sup>which</sup> these miasm<sup>a</sup>  
adhered to some houses in wood; Close Clerkemwell  
for several years in London. 10256. miasmat<sup>a</sup>  
Dr Clark confirms this observation. ~~rather~~

V It is remarkable that the ~~confusion~~  
which produces the typhus fever never ad-  
-heres to white washed walls, or to ~~and~~  
~~boards~~ or to a ground ~~beetle~~ floor. The former  
fact is established by the observations of  
Mr Howard - and the latter was first  
pointed out by fontaine in his  
reviews, who ~~directs~~ <sup>forbids</sup> the ~~floor~~ <sup>ground</sup>, of all  
~~military~~ hospitals to be covered with  
wood, or any other matter. Dr Tilton  
followed this advice with great success  
in the construction of his hut hospitals  
near Mooristown in the year 1780. -

<sup>by</sup>  
If ~~the~~ Persons are capable of inflicting them-  
-selves - that is - poisonation when long  
retained, and confined, especially if it be



late war. These facts <sup>of</sup> Sept: will help  
to impress upon your minds the  
necessity of changing the linen &  
removing the crusts of patients  
in a typhus fever - also of placing  
their beds in the middle of a room.  
It is no new fact that the beds of a dis-  
ease adhere to a wall. The depression of the  
Jews was at one time <sup>of</sup> so malignant  
a nature as to make it necessary to  
~~pull down~~ <sup>destroy even</sup> the house <sup>of a leper</sup> to prevent the  
spreading of the infection of that dis-  
ease.

6 In the operation of human mind-  
-mata, there <sup>it is important of</sup> are ~~two things which demand~~  
~~our notice~~; <sup>that</sup> they act chiefly upon  
persons who are predisposed by  
previous debility, and subvert



combined with all the <sup>or bad</sup> scanty Diet - & Depression of mind, will produce this disease, without any intercourse with persons infected with it.

5 Persons highly charged with the retained and vitiated perspiration sometimes ~~off~~ infect other people, without being affected themselves. It was communicated by some criminals brot from prison in their Cloaths to the Old Bailey to several of the Judges in the year 1750 who with did with it. Some of the criminals ~~had~~ were indisposed from it. turn back



upon persons in whom a vigor is  
preserved in the body or mind by  
one or more active stimuluses.

Convalescents ~~with~~ were most ex-  
posed to the infection of the hospital  
during the late war, <sup>It</sup> has been  
remarked further, that pregnant wo-  
men - and persons who labour under  
painful abscesses or sores <sup>in these hospitals</sup> frequently  
escape the fever altogether. The stimu-  
lus of distraction in the first case, &  
of pain in the two last, protect the  
system from infection. It is equally  
remarkable that after parturition,  
the same women, and after the  
opening of an abscess, or the am-  
putation of the limb, the same



~~The~~ <sup>violence</sup> ~~operation~~ & certainty with w<sup>ch</sup>  
these miasmata operate on the system,  
are greatly influenced by its being more  
or less predisposed by weakness by the  
passions of grief & fear. — It is because  
the system is always predisposed to this fever by great  
debility that it is so seldom required to cure it, & more  
Influence have spores only of the mias:  
~~debility~~ among the rich than poor. <sup>in our army & among officers.</sup> They require less:-  
-mata which are emitted from  
human morbid living bodies. — but many ani-  
-mals under the circumstances of  
famine live on bad diet, & confine-  
-ment emit miasmata which pro-  
-duce fever, an instance of this kind  
<sup>offense</sup> — <sup>Thompson's journey to New York in 1778 for</sup>  
is mentioned by Dr. Hordyce, ~~the~~  
<sup>being the</sup> ~~the~~ Use of y<sup>e</sup> B: Army.  
~~Thompson~~ proved hereafter that canine  
madness is nothing but a malignant  
fever produced in the rabid animal,  
by the retention of its morbid excretions.



men often perish with the same fever. — V

~~I remark further that a fever from miasmata when generated in a hot country~~

~~What <sup>are</sup> the diseases, <sup>or rather</sup> ~~and~~ what is the nature of those fevers which appear to depend on human miasmata?~~

~~To this answer — They produce The typhus miasmata commonly called the slow nervous~~

~~fever. This is the offspring of <sup>all</sup> ~~the~~ causes of fever <sup>last</sup> ~~produced~~ by miasmata. It is preceded by great debility, and <sup>comes on</sup> ~~is induced~~ gradually — frequently without chills. — It affects the brain~~

~~and nervous system in a great degree with stupor — tremors — subsultus &c. — The arterial system is affected with~~



V Sometimes these human miasmata  
produce a fever w<sup>th</sup> apurges, the malignant form  
of the plague. ~~1 = 1, 95 on~~ ~~Sometimes~~  
~~In this form it often appears in~~  
~~faits, crowded hospitals & prison~~  
~~ships. I formerly <sup>was</sup> much misled~~  
~~by Authors as to believe the~~  
~~plague of Constantinople was derived~~  
~~exclusively from this cause, but~~  
~~I am now satisfied this is not~~  
~~the case, and that the fever that~~  
~~occasionally desolates that city, and~~  
~~other cities of the East is derived from~~  
~~the same kind of exhalations which~~  
~~produce our yellow fever. It arises~~  
~~some peculiar symptoms from living~~  
~~the climate, <sup>& filthy dresses,</sup> ~~the~~ diet, ~~of the inhabitants,~~  
~~so possibly, from the filth & confus-~~  
~~ions of the inhabitants of those~~~~



They in this fever 101 with  
1 It affects the blood vessels ~~with fever~~  
<sup>producing chronic & then & then</sup>  
a feeble degree of action. The pulse is seldom  
insupporting ~~fever~~.  
so much exalted as to indicate U.S. - It is some-  
times not quicker than natural.

2 ~~It~~ They affect the nervous system, and  
muscles with stupor & ~~convulsions~~ tremors,  
and the brain with a moderate degree  
of delirium.

3 They now & then induce swellings in  
the lymphatic glands. I have seen them  
in the groins in the Hospital ~~fever~~ fever.

~~Structure of the glands~~ ~~These~~  
~~The 2 species of fever from human~~  
~~produce appearance of the malignant form of~~  
~~Oris mata in the Plague~~ That this disease  
is engendered by all or part of the cir-  
cumstances which produce our com-  
mon ~~fever~~ <sup>part fever</sup>  
~~mon typhus~~ I am now satisfied from  
the various new lights which have



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Other cities of the East is derived from  
the same kind of exhalations which  
produce our yellow fever. It arises  
some peculiar lymphatics from being  
the climate, <sup>& filthy dresses,</sup> ~~the climate, & diet,~~ <sup>and diet</sup> ~~of the inhabitants,~~  
so probably from the filth & confu-  
sions of the inhabitants of those



~~Subsides and quickens of action~~ <sup>irregular</sup>  
 Sometimes the pulse is natural as to ~~slowness~~ <sup>slowness</sup>.  
 The Stomach is seldom affected

with sickness or vomiting, and the  
 vessels are <sup>generally</sup> ~~often~~ regular. The blood sel-

ten discovers any marks of a septic  
 decay, and ~~the bile is no change~~

appears in the bile. — In the most  
 malignant degrees of this fever I have

seen buboes, and Ulcers in the throat, &  
 occasionally abscesses in different parts of

body, but these symptoms of putre-

cent diathesis are very uncommon.

~~Observing this~~ <sup>three</sup>  
~~The species of fever from human~~  
~~pus appears in the malignant form of~~  
~~infectious matter in the Plague.~~ That this disease

is engendered by all or part of the cir-

cumstances which produce our com-

mon <sup>fever</sup> ~~typhus~~. I am now satisfied from  
 the various new lights which have



✓ and from persons visiting the Island of  
St Kilda. Perspiration & breath <sup>so</sup> influenced by diet  
as to become an irritant to the temperate inhabitants  
of the Island.

+ Dr Mackenzie who resided 8  
years at Constantinople is decidedly  
of this opinion. Dr Hodge of London  
has adopted it.

~~countries, it is now & then pro-~~  
~~pagated by contagion from the~~  
~~excretions from the skin, but rarely~~  
~~when care is taken as in hospitals. <sup>differs from our</sup> <sup>hospital in 1804.</sup>~~  
4 Sometimes they produce dysentery.

This has often appeared in garrisons  
that were besieged, and on board  
of crowded ships. ~~also intermittents~~

5 They sometimes produce the disease  
called Scoury of which I hope to  
furnish proofs hereafter. ~~to~~ <sup>to</sup> they  
~~probably sometimes produce the Influenza.~~  
~~go to p 108~~ ~~It may be a low degree of~~  
as in Bellesophon ~~see Bellamy, med. J. vol 4.~~ <sup>John L. Garrison, go. B. 108 V.</sup>  
~~They did so in Frigate Philadelphia.~~



thrown upon this the plague  
 Mr Howard & other philosophical travellers.

Dr Ross informed me that a warm and  
 moist spring never fails to produce <sup>the</sup> a  
 plague in the Constantinople. It is  
 an exciting cause added to a predisposition  
 produced by confinement - the want of  
 cleanliness - penury of diet - and that  
 general depression of mind which ac-  
 -companies a state of slavery. It is

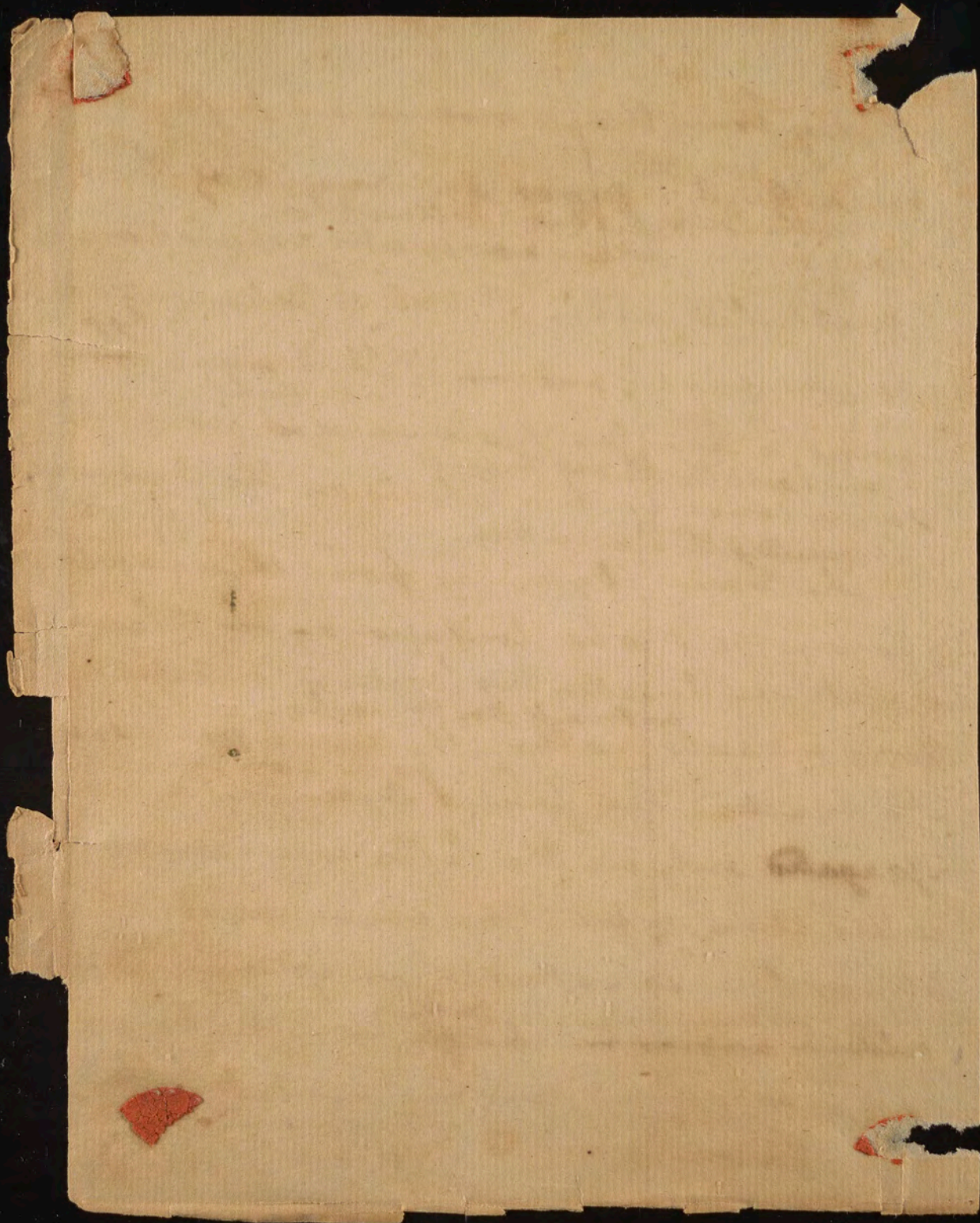
remarkable that the plague <sup>rages in spring</sup> ~~ceases in the~~  
 Constantinople in the spring &  
~~the approach~~ <sup>remains</sup> in Egypt in  
 the winter - owing to the humidity of the

air <sup>which quagmires</sup> ~~in the form of~~ those two different  
 seasons in each of those countries - for  
 humidity appears to be necessary to be-  
 -~~h~~ <sup>de</sup>plete its generation. The contagious



If they sometimes produce an Influenza  
or Catarrh. ~~after~~ <sup>an</sup> account of this dis-  
-ease from Idiosyncratic exhalations is  
published in the 4<sup>th</sup> Vol. of Bellamy's medi-  
-cal Journal, and in D<sup>r</sup> <sup>Cutane</sup> ~~Changany~~, Thesis  
recorded a similar Instance of it from the  
on board the Philad Frigate  
same cause in his Thesis on the Dysentery.  
It preceded the Dysentery, <sup>a Catarrh from the</sup> same cause in gonorrheal  
of the Uterus, & Dysentery from these exhalations  
-tions is said to be Contagious. - There are  
I shall say hereafter two Species of Contagion -  
from a secret matter - the second from exo-  
-ted matter. The first & Dysentery are pro-  
-pagated only in the latter way. They never  
extend above 10 feet - They never pervade the  
atmosphere so as produce an epidemic & then  
they produce disease only  
~~which appears in~~ chiefly in jails - hospitals  
camps & prisons, and in small & filthy  
inns of poor people. — go to page 108.1. &







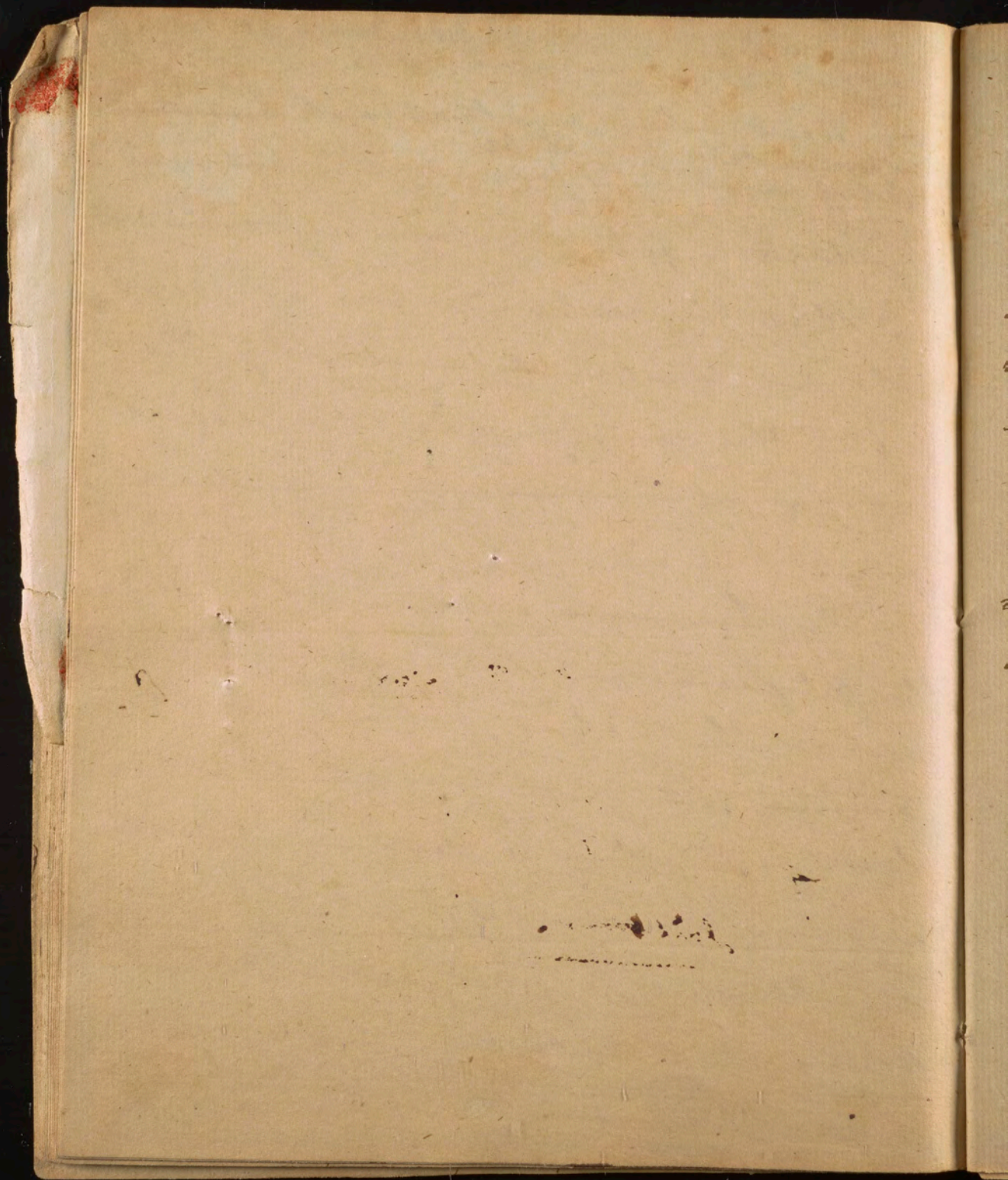
✓ Ulloa relates a fact in his travels  
thru the Island of Cuba which accords  
with the one I have mentioned from  
Volney. He tells us that when ever the  
Spaniards get a little wet in a light  
shower of rain - they plunge themselves  
all over in water, or remain in the  
rain? till they are wet to the skin. The  
off rain here probably destroys by  
dilution the miasmata which are  
rendered active by the moderate concentration  
of a little <sup>water into</sup> ~~dense~~ moisture only.



when formed resembles an insensate in  
 one particular, and that is, it is <sup>formation</sup> ~~is either~~  
<sup>is prevented</sup> ~~not formed~~, or if formed, it is destroyed  
 by water - for Mr Volney informs us  
 us that the water carriers at Cairo  
 who are constantly washed by the  
 water they carry, escape the plague  
 when it is most epidemic in that  
 city. <sup>v</sup> —

The ~~human~~ effluvia which produce  
 the plague resemble the effluvia which  
 produce the typhus, <sup>mities or jail fever,</sup> not only in its  
 origin, but in many other particu-  
 -lars. — 1 It adheres to cloathing of all kinds  
 and is often conveyed by it to distant  
 countries. 2 It is not communicated  
 to any great distance. 10,000 persons  
<sup>escaped</sup> it in London & in the year 1864, by







living on board of ships in the Thames.

3 It produces bubos and other eruptions on the skin.

4 It affects the faculties of the mind in the same way in persons who recover from it - particularly, the memory <sup>can leave the system</sup>

5 It is very apt to be disposed to relapses, from eating animal food - from sudden emotions - or from the gratification of the venereal appetite. — It differs from

it only in attaching <sup>more</sup> and suddenly, & with symptoms of <sup>or of immense indirect</sup> ~~excessive~~ Action, <sup>violent</sup> ~~this~~ debility.

Action is ~~sometimes~~ <sup>sometimes</sup> of an inflamed nature, and is <sup>sometimes</sup> accompanied with dirty blood. 2 It ~~is a killer in~~ <sup>is fatal in</sup> shorter time than the ~~typhus~~ <sup>typhoid</sup>. It kills <sup>most</sup> frequently in on the 3 and 5<sup>th</sup> days - and sometimes

it extinguishes life as suddenly as lightning. In this



✓ The jail fever is the plague, &  
the bilious is the yellow fever.



case the contagion acts by inducing in-  
 direct debility as <sup>prostrates</sup> to ~~reach~~ the system below  
 the point of ~~life~~ <sup>reaction</sup>. 3 It is more general  
 and affects a greater number of people  
 than the typhus or nervous fever.

Both these ~~two fevers~~ appear to be  
 different ~~grades of one fever~~ <sup>discrete</sup> disease.  
~~was certain species of the same disease~~  
~~just as high as typhus or yellow fever~~  
~~perhaps variation of the same phenomena~~

difference between them seems to depend  
 chiefly upon the difference of customs &  
 manners between the inhabitants of  
 Turkey and Egypt and the inhabitants  
 of Great Britain & the United States of  
 America, for the <sup>Jail fever</sup> ~~typhus~~ <sup>is not</sup> according to Mr.  
 Howard is known only in the two  
 latter countries. In no Jail in Europe  
 however dirty or crowded except in Great  
 Britain did he find a single instance of



✓ It is remarkable that the Plague  
has seldom been in Europe in the  
present century. In France only  
in 1720 & in England never, since the  
year 1665. - ~~However~~ Before this time  
it <sup>twice</sup> occurred ~~at least~~ every year for

✓ It proves by the bye that the blood is  
not affected primarily - but the bile.

ten years together in Eng? - In  
these cases it was always ascribed  
to ~~super~~ importation, - but this  
was not true, - it was most pro-  
bably generated in all the large ci-  
ties of Europe. The different man-  
ner of building, <sup>the greater degrees of cleanliness</sup> - & the greater  
consumption of vegetables from the  
increase of horticulture & agricul-  
-ture <sup>& debility</sup> by altering the perspiration,  
renders it less apt to produce malig-  
-nant fevers. ~~Like~~ Dysentery is



~~The~~ jail or hospital fever. <sup>V</sup>  
 produced secondarily  
 [The 3<sup>rd</sup> Species of fever from human  
 effluvia is the yellow fever. <sup>I before</sup> ~~this disease~~

explained the origin of this disease.

It produces <sup>great</sup> ~~vigorous~~ excess of action in  
 the arterial system, ~~and a strong supple~~  
~~trading in the fluids~~. But its most re-

markable feature is affecting the  
 liver with <sup>pain &</sup> inflammation, and promoting  
 a plentiful and morbid secretion and  
 excretion of Bile. In this - it discovers  
 its <sup>original</sup> muddy or masby extraction - for

Marsh miasmata I said formerly have  
 a peculiar affinity disposition to <sup>act</sup> ~~reside~~  
<sup>upon the liver</sup>  
~~within the liver~~ and the Lile. <sup>V</sup> [It belongs

to this form I wish it would be clearly  
 established. Whether this fever was



from human virus matter —

✓ The yellow fever is said to be a native  
of the West Indies only. This is as erroneous,  
as that the plague, is generated only  
in the Eastern Countries. The <sup>true</sup> yellow  
fever was known in Greece & is described  
by Hippocrates. It prevails occasionally  
at Minorca according to Dr. Elghorn, & at  
Cadix according to Dr. Lind. It ~~was~~ <sup>is</sup> ~~has been~~  
generated in ~~these~~ All the <sup>islands</sup> ~~islands~~ of the West Indies,  
& where altho' it has been said, to have  
been imported into Charleston - Philad<sup>a</sup>.  
& New York, yet I have no doubt now  
but it was in most cases generated in  
each of those places. I —

✓ The Influenza is ~~probably~~ a light  
degree of ~~bill~~ fever, affecting the lungs  
chiefly. It is certainly of animal  
origin. ~~It is a fever from a Union~~



conveyed from time to time to the Conti-  
 -ment of America - from <sup>the</sup> West Indians or  
 from <sup>the</sup> Americans only. If from the  
 latter - it will give us a new fact upon <sup>e</sup>  
 connection of  
 subject of human miasmata with the  
 manners & customs or rather idiosyncrasy  
 of particular countries.]

Thus have I pointed out all <sup>the</sup> ~~the~~ <sup>the diseases</sup> ~~only~~  
~~the~~ fever which appears to be engendered  
 by <sup>animal</sup> ~~human~~ & particularly ~~the~~ <sup>the</sup> Typhus  
 by <sup>human</sup> miasmata. They may be  
 distinguished from the ~~the~~ fever which  
 are produced by miasmata 1<sup>st</sup> by  
 prevailing at all seasons - 2<sup>nd</sup> by not being  
 attended with remissions or a Discharge  
 more moderate  
 of bile. 3<sup>rd</sup> by ~~only one~~ <sup>state</sup> of action in  
 the vessels, and 4<sup>th</sup> by being contagious & more easily  
 propagated by excretion. 5<sup>th</sup> by ~~the~~ a knowledge  
 of the remote causes. 6<sup>th</sup> by affecting debili-  
 -tated more than healthy people. 7<sup>th</sup> by its longer  
 duration, being often from 20 to 30 days.



105.1  
+ 7 affecting the robust <sup>more than</sup> ~~weakly people~~ <sup>the</sup> ~~subject~~  
I have only to add to this ~~subject~~

that the ~~miss~~ human miasmata  
sometimes act upon the body  
at a time while it is impregnated  
with miasmata, and thus  
produce a fever with a yellow skin  
and several other bilious symptoms.

Desmonroe, & Lempriere latterly,  
describe a fever of this kind. Sailors  
who arrive in ~~rich~~ by ships in the  
West Indies are often affected with it.

It is now & then propagated by  
the excretions, & from hence (as I  
shall say hereafter) has arisen the error  
of the contagion of the yellow fever in  
the West Indies <sup>Do the plague.</sup> I said formerly +



occurring only in the Anterior: 2 By  
 remissions, and a discharge of bile -  
 3 By being attended with <sup>more morbid</sup> ~~two states of~~  
 Action in the Arterial system. 4 By  
 vicinity, or exposure to its remote cause.  
 5 By being checked by cold & rain. +  
 The yellow fever is distinguished from  
 both, by the greater violence of its symptoms  
 an occasional yellow by faintness -  
 - by the color of the skin - by a peculiar  
 pulse - full - slow - quipping - intermitting  
~~in the region of the stomach~~ <sup>color of the eye</sup>  
 & flattened - by a peculiar cast of countenance - <sup>of the</sup>  
 liver which ~~resides in the right testicle~~  
 & by great detour <sup>into the brain</sup> ~~by an~~  
~~of the blood on those parts, painful~~  
 Discharge of black bile upward & downward  
~~according to the course of Linnæus by an~~  
 & by ~~heaviness~~ <sup>heaviness</sup> ~~from every part of~~  
~~eruptions of pimples on the stomach &~~  
~~the body, where it has not been~~  
 used: For the marks of the plague I refer  
 you to authors. It has never yet been  
 known in America. -

~~be found it to do more in this manner~~



of Jails, Ships & Camps is generally  
from human miasmata.

It is of great consequence to  
distinguish the fevers from these  
two sources of ~~dead~~ miasmata that  
have been mentioned, not only because  
they require different methods of cure,  
but different ~~ways~~ means to prevent  
them. The bilious fever is to be prevented  
by removing the exhalations of dead  
vegetable & animal matters - but the  
Jail fever which is the offspring of  
morbid living bodies can only be  
prevented by domestic cleanliness,  
- free air - and ~~removing~~ obviating all  
its other remote causes. Again the  
bilious fever cannot be imported. the  
Jail fever can, & often spreads afterwards



211<sup>2</sup> we proceed now to 109 mention a 3<sup>d</sup> source  
of diseases from a mixture of unwholesome  
matters with the air. This is the

3 ~~phlogisticated air~~ <sup>air rendered unfit for</sup> ~~respiration by being breathed~~  
by the breath or from fires, or from

both of them. You have all read  
of the melancholly case of the death of  
a number of Englishmen who were  
confined together in a room called the  
black hole at Calcutta. Dr Hales relates  
an account of 3 persons <sup>out</sup> of 4 perishing  
with a fever who seated themselves near  
a hole in the ceiling of the house of  
Commons for the sake of taking notes  
of a private debate. The sickness <sup>ch</sup>  
is contracted by children in crowded  
schools is probably derived only  
from the phlogistication of the air.



this whole cities & Countries. ~~The~~  
~~the~~ Quarantine laws can operate  
only against the latter disease. They  
are unavailing against the bilious  
or yellow fever. - The name of plague  
has been indiscriminately given to  
the fever from both the causes we  
have mentioned. ~~The same~~ But they  
are easily distinguished, & chiefly from  
their different causes. Mr Webster  
calls the fever from Dead miasmata  
the bilious plague, & the fever from  
human miasmata the ingrinal  
plague. But these names do not suffi-  
ciently designate them. <sup>for</sup> In the worst  
cases of yellow fever, no bile is secreted,  
or excreted owing to the prostration & efflu-  
ence of excitement in the liver, nor  
do ingrinal or glandular swellings



But this air produces other diseases  
 besides fevers. I know a lady who can-  
 not go into a crowded room to pay an  
 afternoon's visit, without being seized  
 with a giddiness in the head, and I knew  
 a gentleman <sup>who is</sup> subject to the gout who  
 used to feel in the same circumstances  
 a distressing pain in his neck. The  
 Epilepsy usually attacks in a crowd -  
 hence its name of morbus convulsivus.  
 The <sup>impure</sup> ~~phlogistic~~ air is probably the exci-  
 ting cause of the <sup>fits</sup> ~~fits~~ in such situations.  
 Diseases of the lungs are always more  
 or less increased by this air. It is  
 more unhealthy at night, than in  
 the day time owing to its mixture.



belong exclusively to the plague from  
~~human miasmata~~, for we see them  
in the yellow fever. ~~I even in the~~  
I am at a loss for <sup>appropriate</sup> names  
for them. Perhaps they had better retain  
they had better be designated from their  
causes, than their symptoms - for their  
causes are uniform, except now & then  
both causes in the production of  
fever. This is taken notice by Pungel,  
Munroe, Chisholm & Lampson, in  
which case the fever is said to be ~~more~~  
contagious.

The plague disease  
called plague in Egypt is chiefly from the  
<sup>(except in Cairo)</sup>  
<sup>of the Nile</sup>  
putrid exhalations - The plagues of Syria,  
& Constantinople, are from human mias-  
mata.

It is <sup>still</sup> more unhealthy if persons who are  
thus confined labour or exercise, than if  
they sit still.







✓ The smell of  $\Delta$  has been that to  
disprove even to Vice - and to this  
Byrdone ascribes the peculiar wit-  
-edness of the inhabitants of the Crigh-  
-brood of the Volcano near Naples.

7 Certain odors in the air often induce  
Disease. The smells of roses & violets have  
sometimes destroyed life. Desiridit mentions  
that the odor from Naples nearly killed  
a number of boys at Jura. They were  
saved by large quantities of wine.



burn coal in their houses instead of wood, and that he never knew so many Coughs in that town as he did during the winter in which it was <sup>in</sup> fashion to burn this coal.

6 The effluvia of certain manufactures contribute to contaminate the air - particularly all those manufactures which volatilise, and diffuse thro' the air - the fumes of lead - sulphur<sup>v</sup> - or Arsenic -

7 The matter which is discharged by plants in the night<sup>v</sup> probably contributes very much to render the Night<sup>v</sup> Air unwholesome.

8 But these are not all the sources of impurity and disease in the Air. In



It is obviated } likewise by high walls,  
& by heavy throwers of rain.



the Eastern Countries the Air is often  
 combined with ~~a~~ a matter which  
 renders it suddenly fatal if taken  
 into the lungs. It is avoided only by  
 falling on the face, and lying there  
 till the Air impregnated <sup>th</sup> in the poisons  
 -ous effluvia has passed over. It is  
 called Haze-mattan in some countries.  
 Bruce calls it the Sarnoor. These  
 winds which ~~can~~ brings this deadly  
 Air along with it, ~~Drop in form of~~ blows over large  
 beds of Bitumens which abound <sup>th</sup>.  
 the Vitriolic Acid, - It is the decomposi-  
 -tion of these bituminous substances  
 by the intense heat of the sun, and  
 the Sulphurous and in a volat.  
~~the extrication of a Vol. vit. Acid~~  
 State which is extricated by this heat  
 which is probably the matter <sup>that</sup>



V Persons who perish from the  
Action of this Wind putrify in a  
few hours. No putrid ferment is  
here introduced into the body, for this  
Cold Air is probably of antiseptic  
nature. I shall hereafter  
acc<sup>2</sup> for the putrid smell in animal  
bodies in sickness & soon after death,  
upon other principles, than a change  
of properties from putrefaction.

The Syroco Wind is common at  
Alex<sup>ro</sup>, and in some parts of  
Italy. It is common Air heated  
by passing over a sandy country.  
It produces faintness & languor &c,



produces the Samoom. [This idea  
was first suggested to me by Dr. Hays  
who informed me that he had ment.  
it to Dr. Priestly who was much pleased  
with it. ~~It is observed~~

~~At the~~  
~~10th~~ Mr Bruce mentions another  
series of ~~unhealthy~~ air, which tho' it  
proved deadly only to brute animals  
deserves to be mentioned in this place.  
He tells us that <sup>in several miles around</sup> at Linnear a town  
on the Nile which lies in the lat. of  
 $13^{\circ} 34' 36''$  N. and  $30^{\circ} 30' 30''$  East from  
Greenwich, the ~~country~~ earth emits  
an air which is deadly to all animals  
except man probably because he  
is not obliged to stoop to it to receive  
his nourishment. Mr Bruce lost



but no violent disease.

I Oxygen, or pure dephlog<sup>d</sup> air  
often <sup>super</sup>abounds in the Atmosphere,  
producing by its stimulus a  
predisposition to inflam<sup>d</sup> diseases,  
or an inflam<sup>d</sup> Constitution of  
the Air. It is exhaled from plants,  
Rivers & the Ocean. It does not  
change the sensible Qualities of  
the Air. Persons from the seashore  
& the Country who were affected w<sup>th</sup>  
the yellow fever <sup>in the</sup> summer 1794  
had it worse than other people,  
owing to their bringing bodies into  
the city unusually impregnated  
with Oxygen. Hippocrates long  
ago described this inflam<sup>d</sup> Consti-  
tution of the Air. He calls it "totherion".



two grey hounds, & all his mules a few weeks after he arrived at this town. They die without discovering any outward <sup>cause</sup> diseases.

The unwholesomeness of the air is confined only to the rainy season, and as soon as it comes on, the inhabitants save their cattle &c by sending them to some distance from the town.

- No tree or flower except the lemon flower grows <sup>in</sup> it, but rice - wheat & millet thrive there, for the soil is uncommonly rich & fruitful.

It is never overflowed by the river. The earth when leached affords a good deal of salt. In walking over some earth of this kind elsewhere Mr Bruce tells us he found prickling



Dydenham observed it - described it -  
lamented it. <sup>He</sup> ascribed it to a  
mineral exhalation from the bowels  
of the ~~earth~~. <sup>It exists from</sup> 1 to 50 years +

near Lioto Settlement there is a  
piece of ground which proves fatal  
to deer. It killed two of Mr. Segrain's  
puppies - <sup>It was</sup> supposed to be owing to fixed air.  
no. 10 p. 116

+ see Lin's acc<sup>t</sup> of it, also Dr. Lhuys's

<sup>He</sup> a Vapor is sometimes emitted from the  
earth when torn by an Earthquake which  
mixed with the Air & produces diseases. This  
was remarkably the case after the Earthquake  
on the 7<sup>th</sup> of June  
in 1692 in Jamaica. The Vapor in this case had a  
most offensive smell. 3000 persons died of a fever  
produced by it a few months afterwards.

<sup>He</sup> a Vapor is said to be emitted at certain  
times from Springs which contaminate the  
Air. This was the case in one of the plagues at  
Vienna - it had a bad smell. D<sup>o</sup> in France.

~~no. 10~~ - p. 116 ○



pains in his legs. — Is this air  
~~inflammable~~ — or ~~mephitic~~ — ? It  
 is ~~probably~~ what can be the nature of  
 this air? — I should suppose it to be  
 of the fixed or mephitic kind. <sup>where it</sup> ~~is~~ it  
 is so fatal to ~~vegetable~~ flowers — for  
 probably ~~from~~ <sup>the effects of</sup>  
 these flowers according to Dr Priestly in  
 this kind of air. — mephitic air at grotto  
 of Allene — often does fatal in <sup>all cases</sup> ~~all cases~~ & <sup>in all cases</sup> ~~in all cases~~

— we now next to speak of: —  
 of particular situations in producing dis-  
 eases. — Let: us — Feb: 13. 1792

These are diversified by <sup>country</sup> ~~town~~ & town-  
 by <sup>near</sup> ~~vicina~~ soil — by vicinity to mountains  
 marshes — <sup>deserts</sup> mill ponds — and Seashore also  
 by a change of Situation from some of the  
 Above places to Others — of each of which  
 in Order. —

1 The country is more or less favourable



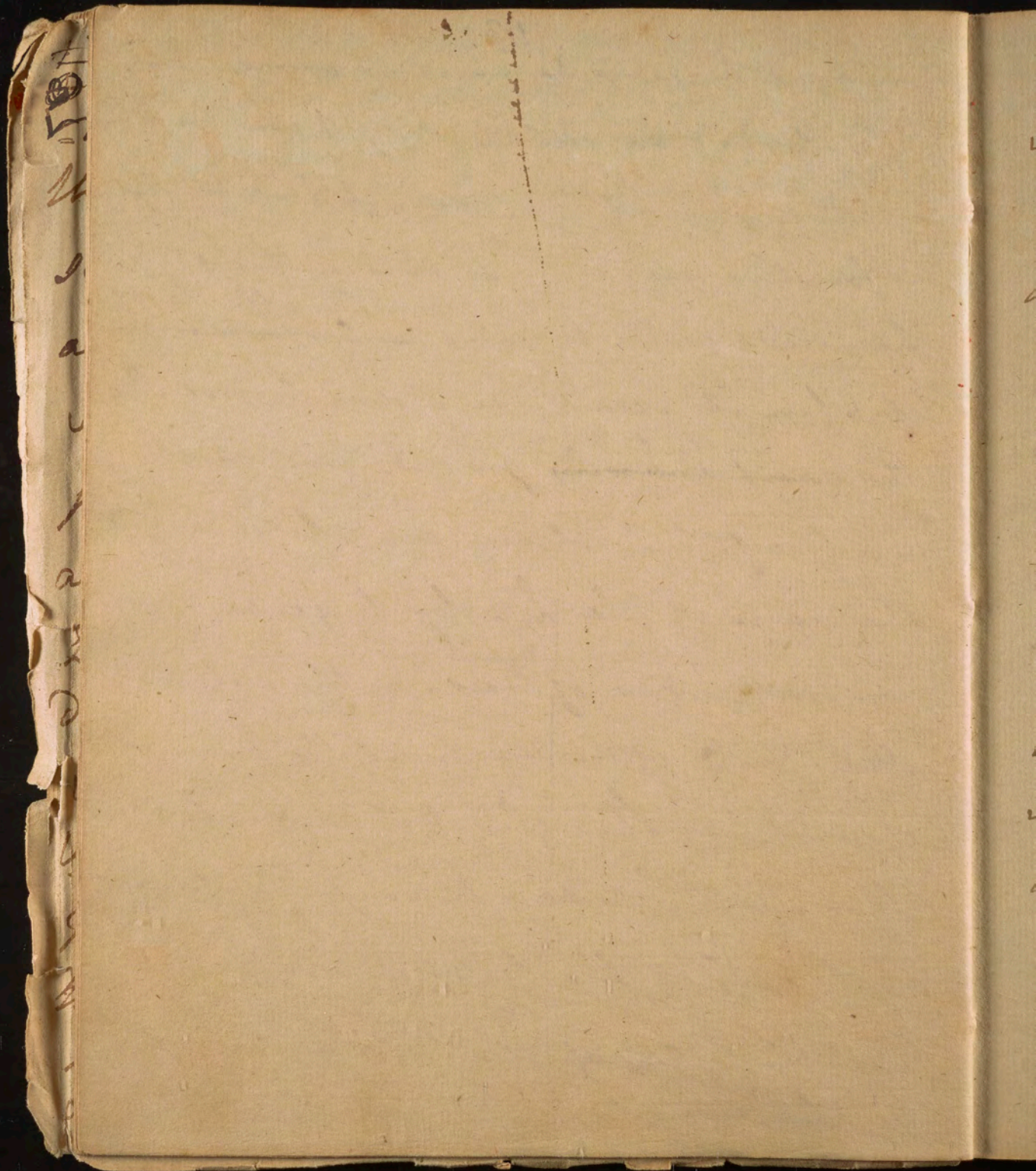
V In this case it is necessary, there should  
be no opening for the ~~best~~ rays of  
the Rays of the Sun at any time of  
the day. A proof of their sad effects upon  
health & life in a wood is contained in a letter  
from Dr. Woodie of the British Army in the  
East Indies to Mr. White as respectable Apo-  
thecary at Bath. He says: 1500 Soldiers en-  
camped at Hinzura in August 1801 in  
a Valley covered with lofty trees. No exhalation  
took place in it except at midday  
when it was very great. After being there  
20 days <sup>thus</sup> embosomed, and soon afterwards 500  
of them died including a number of officers.  
Within 200 yards of the above forest, on a  
high & healthy situation, a Reg<sup>t</sup> of Royal Artillery  
enjoyed good health. To return -



to health, according as it is more or less cleared or cultivated. A new country is always healthy. Sickness & Death in a frontier country is so rare a thing, <sup>that</sup> hundreds crowd to view ~~a corpse~~ <sup>the effects of</sup> it when it occurs, in a dead corpse. Even the ~~worst~~ <sup>wettest</sup> ~~marshy~~ grounds are not unhealthy, if they are sheltered from the rays of the sun by large and numerous bodies of trees. In the Delaware State men often work at the business of making shingles for weeks together in the cedar swamps, without contracting the least indisposition.

The first act of clearing a country is the usual signal for the appearance







168  
febrile  
of diseases provided the timber which  
is cut down opens a wet soil to the  
Action of the Sun, or opens a passage  
for <sup>marsh</sup> miasma from a neighbouring  
river - Creek - or Mill pond. A  
country thus cleared or opened will  
remain richly for many years  
if improvements become stationary.  
- This is the case in <sup>Delaware</sup> Maryland - and  
in all the States beyond the Potomac,  
where large possessions in land render  
it impracticable for the cultivation  
to keep pace with the clearing of the  
country - and hence the richness of  
those States - But in the Northern  
& middle States where cultivation  
[which consists in draining low



<sup>Different states & mixtures of</sup>  
✓ The diseases produced by the air in  
the country are chiefly Influenza - in-  
-termitting & bilious fevers - and the  
Dysentery. The languid state of the  
bowels induced by <sup>vapid drinks &</sup> a diet consisting  
chiefly of vegetables seems to <sup>predispose</sup> ~~produce~~  
country people more than the inhabi-  
-tants of cities to ~~the~~ the last of those  
<sup>cases.</sup>  
~~disorders.~~ -



119  
grounds - confining overflowing streams  
of water - and ~~losing~~ dissipating  
moisture in grain and grass) I say,  
where this cultivation succeeds the  
clearing of a country, it soon be-  
comes perfectly healthy. The state  
of Connecticut <sup>70 or 80</sup> years ago was  
as nearly as subject to bilious and  
intermitting fevers as the states of  
Delaware & Maryland, but they  
have both yielded to that general  
state of cultivation which has been  
introduced into that country, by the  
equal and small divisions of land  
- and property ~~in that~~ which have taken  
place in that happy and enlightened  
state. V



✓ Hence the foundation of Mr Comper's  
remark that "God made the country, but  
man made cities." ~~we~~ They have, <sup>been</sup> in  
every age, the hotbeds of vice, disease, misery. My

✓ Man says Airsman ~~is not~~ was not  
made to live in a crowd. Like ~~that~~ the  
human species sicken and destroy each  
other when <sup>too much</sup> confined, ~~as~~ ~~is~~ ~~not~~ this they  
do not only by producing vices but  
diseases of all kinds. — business at  
present is only to <sup>take notice of</sup> ~~perpetuate~~ the effects of  
the impurity of the Atmosphere =



2 Towns and Cities are the graves of the human Species. — The first Account we have of a City is the book of Genesis. It was built by Cain — probably that he might destroy in a crowd the remorse he felt <sup>for having</sup> after he had shed the blood of his brother's blood. Cities in every age and in every country have served nearly the same purpose of extinguishing all moral feeling & reflection. But in another place I shall point out the influence of the <sup>folly & passions which</sup> rank Vice of Cities are cherished in Cities upon human life. At present I am <sup>shall take notice</sup> confined only to the impurity of the Atmosphere <sup>of</sup> arising from the number of persons breathing the same air — from the unwholesome exhalations of dirty



✓ and from the greater heat of cities  
occasioned by the confinement of hot  
air ~~and~~ the reflection of the sun's rays  
from <sup>pavements &</sup> the walls of houses, & the subse-  
quent confinement of the hot air.

But these are not the only sources of  
the unhealthiness of Cities. The <sup>animals</sup> ~~cattle~~  
<sup>vegetables</sup> upon which the inhabitants of Cities feed,  
being fed by manure are less more  
disposed to put on a putrid disposition  
than animals & vegetables raised in a  
natural soil & at a distance from Cities.  
Lastly the water in Cities from the filth  
of streets & gutters & privies conveyed into  
it is less healthy than river water or  
water where these mixtures do not  
take place. In consequence of the op-  
eration of all these causes it has been  
stated by Dr Paine that in large cities  
run over



Docks, yards & gardens - impure Sewers  
Streets & from the effluvia of the matters  
employed in various manufactures.  
<sup>Cities</sup> These are so fruitful a source of diseases &  
death, that ~~while~~ <sup>persons</sup> only 3 - or 4 ~~live~~  
in an <sup>100</sup> die every year in the  
country, <sup>400</sup> five die in the same <sup>most cities.</sup> ~~year~~  
- but every year in a city. It is com-  
-puted that ~~a man~~ <sup>Dr Price</sup> ~~loses~~ <sup>of his</sup> a man loses  
a portion of his health or life who  
settles in London before he is 30 years  
of his age - The system at that period  
it ~~is~~ acquires a Vigor which enables  
it to resist the causes of diseases before  
mentioned. The diseases which <sup>are</sup> ~~are~~  
produced by the Air of a city are chiefly  
the <sup>biliousness</sup> ~~typhus~~ <sup>fever</sup> - consumptions -  
~~the~~ some nervous affections. The Dysentery



for at that time <sup>probably 50</sup> years ago) <sup>growing at part of the</sup>  
milk & milk was the diet of the greatest part  
of the farmers in the middle states of America.

Dr Coghren speaks of a Dysentery  
which prevailed among the lower class  
of natives at a Village in Minnesota lost  
on by eating damaged wheat, which did  
not affect the soldiers, & others, in the  
same town who lived on better provisions.  
10:145

= 1 dies in from 19 to 22 or 23. In  
moderate towns from 1 in from 24 to  
28 - in Villages from 1 - in from 40 to 50  
In London  $\frac{1}{2}$  die under 3 years old - in  
Vienna & Stockholm  $\frac{1}{2}$  under 2 - in  
Manchester  $\frac{2}{3}$  under 5. in Northamp-  
ton  $\frac{1}{2}$  under 10 years, but in Warwick  
in York Shire  $\frac{1}{2}$  who are born live to be  
46 - Dr Price



is less common in cities, owing proba-  
 -bly to the general use of tea - coffee -  
 & wine. - ~~and animal food~~. While I  
 was a student at the Coll ~~near~~ Jersey College  
 a Dysentery broke out among the  
 students - but it was very remarka-  
 -ble that not a single boy from  
 the cities of New York or Philad<sup>a</sup> was  
 affected with it. It was confined  
 only to the ~~bad~~ young men who had  
 lived previously to y<sup>r</sup> coming to college  
 upon <sup>a milk or vegetable diet</sup> ~~the country diet~~, before mentioned.

But Further. The qualities of air are  
 influenced by other <sup>more minute</sup> circumstances, such  
 as <sup>the</sup> nature of the soil of both towns  
 & countries. A sandy soil by retaining  
 and reflecting more heat, disposes to



mountains are cooler than  
level ground, and those mountains  
which are covered with evergreens  
cooler than others. Frost appears  
earlier in the Autumn & later  
in the Spring in the neighborhood  
of pines - Hemlocks &c than  
of in the neighborhood of any  
other forest trees. There are two ex-

-ceptions to the healthiness of high  
situations. <sup>burn over - the</sup> ~~At Calcutta - the~~  
~~the~~ <sup>In the former place, the</sup>  
Don Domingo. The latter related by Dr  
H. Meilen - Rivers prevail on  
the heights & health below, -

What cause? Intercept of winds  
as found to happen in Syria. &c.



all the diseases of hot weather, and particularly to the diseases of the eyes.

4 A situation in a mountainous country is always less unhealthy than in a low country - and hence the <sup>fewest Deaths &</sup> greatest number of long lived people are to be found in the mountains of Switzerland of any country in Europe. ~~The diseases~~

5 The vicinity of a town or country to marshy ground <sup>there</sup> ~~exposed~~ every year to bilious & intermitting fevers. It is necessary that the winds which blow upon these situations should pass over the ~~the~~ ground which exhales the miasmata, and it is remarkable that they produce fevers more certainly if those winds are combined with



#

British soldiers who occupy the heights  
in the neighbourhood of the <sup>of Saluntha</sup> city are always  
more sickly, than the soldiers who <sup>are</sup>  
quartered in the Vallies below them, &  
hence they often exchange situations.

Dr Hect. McLen mentions a similar  
fact at St Domingo of the greater un-  
-healthiness of a high & mountainous  
situation, than of a situation below  
it. How shall we account for this?  
Do the mountains arrest & detain the  
exhalations from the Vallies? ~~Yes~~  
- mountains often <sup>thus arrest</sup> ~~do this~~ with clouds  
of rain - more especially when they  
are covered with lofty trees <sup>Mr Volney's</sup>  
mentions a curious fact of a hill in which  
~~fact of a mountain~~ in ~~which~~ on  
~~planting pines~~ which scarcely any  
rain ever fell, but which was plentifully  
watered upon covering it with a number  
of stately pine trees. The only healthy spots  
in Corsica - are mountains



moderate rains. ~~It is difficult to de-~~  
 termine how far *virgata* may  
 be carried by the winds ~~and I have heard~~  
~~Dr Boerhaave says 20 miles from~~  
~~Longpierre says 9 miles from~~  
~~I can only say that~~  
~~I have known these conveyed only~~  
~~miles from the shores of the Risle channel.~~  
~~ten This has been ascertained on~~  
~~the banks of the Risle channel.~~  
 The  
 passage of these *virgata* may  
 easily be checked by trees or a copse of  
 trees ~~between~~ <sup>left</sup> or planted <sup>later</sup> in  
 the direction of the wind after it has  
 passed over the marshy ground. ~~There~~  
 is remarkable that the *virgata*  
 from the tract called the Reek below  
 vicinity seldom produced a bilious  
 fever beyond South Street for many  
 years, and the famous Breakbone



Viz: Vivacio & Vitravona. Lively people  
moves by going there. Volney's view.

V ~~Old people seldom suffer from  
living in the vicinity of marsh  
exhalations. On the contrary, they  
often die soon after they are removed  
be from this action. The miasmata  
here become an essential stimulus  
of life.~~]

V ~~Planting~~ Planting trees around mill  
ponds so as to prevent the rays  
of the sun acting upon the shores  
of the ponds, effectually prevents  
this producing Intermittent, or  
bilious fevers by exhalation.

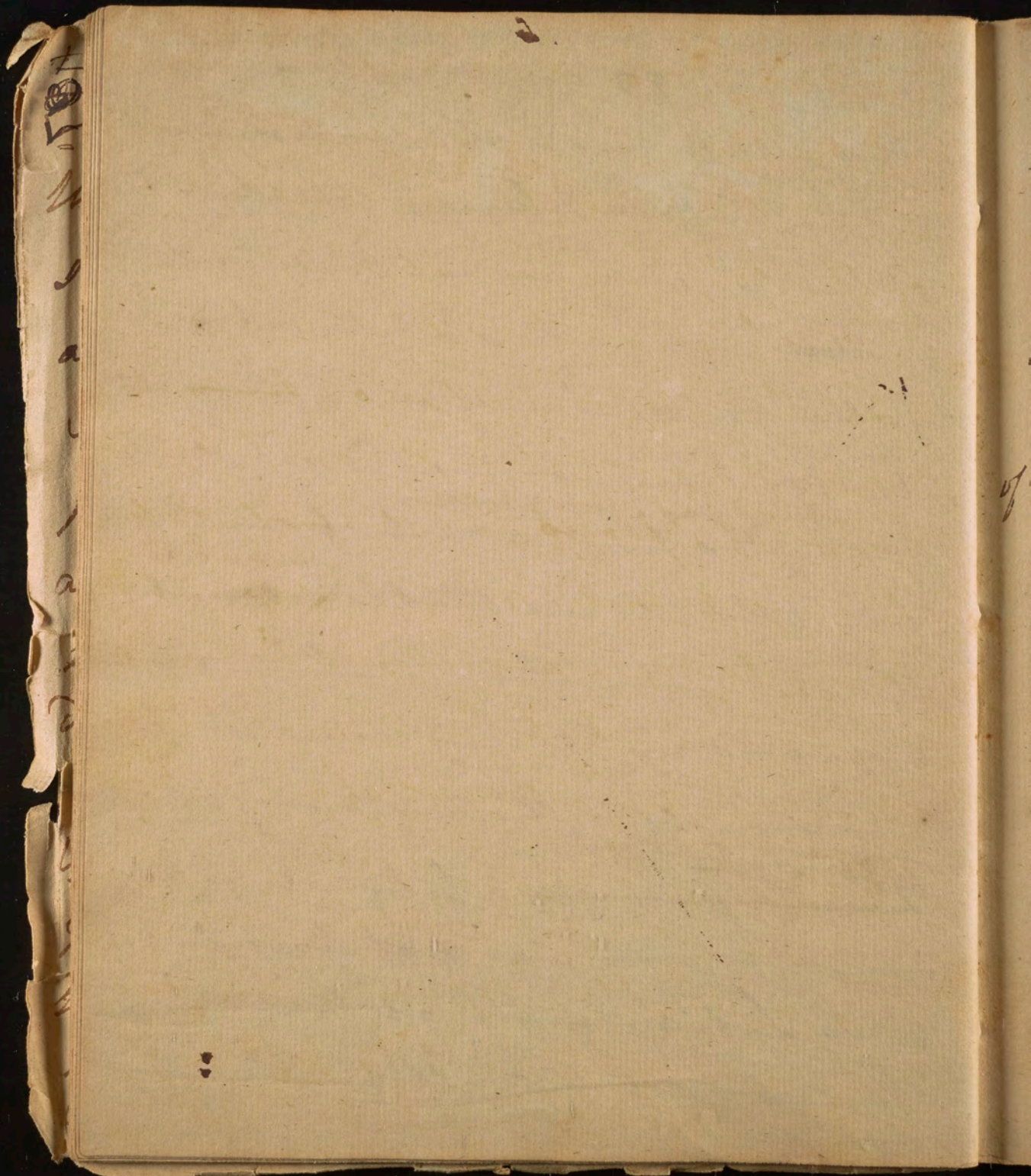


fever in 1780 affected only one or two streets near the water, and never extended beyond Market Street in a northern direction.

~~With~~ Intermitting & bilious fevers follow the damming of water in mill ponds. I once conversed <sup>with</sup> an old man <sup>when I was a young man</sup> who lived 10 miles from the city, who told me that he <sup>remembered</sup> the first interm<sup>t</sup> fever which ever appeared in his neighbourhood. It

was soon after the erection of a mill.  
 In 1790 ~~I find that~~ <sup>Twenty years ago</sup> a bilious & intermitting fever was not known in Nova Scotia — for at that time there was not a mill in that province. — V



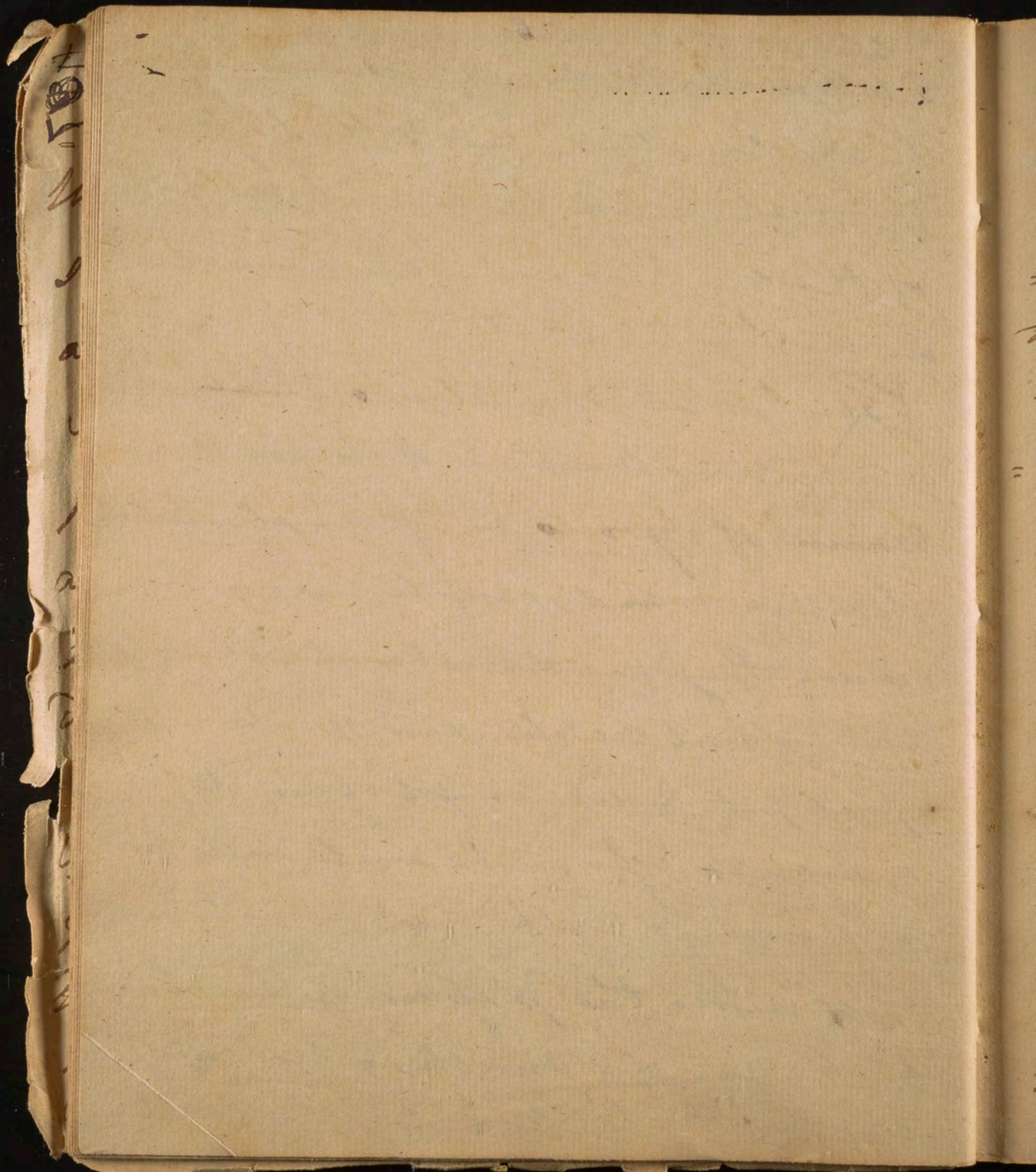




by  
 6<sup>th</sup> vicinity to deserts - cleared - or  
 woody countries - and to the Seashore  
 by influencing the sensible qualities  
 of the air has an extensive influence  
 on the human body. —

~~The hot winds of Aleppo - Italy &  
 of many other countries, known by the  
 name of Sycro is extremely debi-  
 -litating, & ~~is~~ disposes to many dis-  
 -eases. Brydone describes it as having  
 occurred at Naples, and speaks with  
 great pity & contempt of an Italian  
 Marquis whom he met with in  
 a morning walk supporting him-  
 -self under the preface of this air  
 by means of a smelling bottle. It  
 appears to be pure air heated~~







by passing over immense beds of sand.

The vicinity of a town or country to  
 cleared or woody countries greatly al-  
 ters the temperature of the air, and  
 thereby changes the nature of such dis-  
 =cuses as depend on its sensible qual-  
 =ities. Italy has become temperate by  
 the <sup>clearing &</sup> cultivation of Hungary & Germany,  
 and the ~~the~~ United States of America  
 will probably become <sup>much</sup> ~~more~~ less cold  
 when the rays of sun are permitted  
 to act upon that extensive region  
 which lies to the <sup>North</sup> west of them on the  
 lakes and in Canada. —

The air on the sea shore is of a peculiar  
 quality. It while the air at a small  
 distance from the shore both on the



✓ also of salt and fresh water. see Alex<sup>nd</sup>er

✓



land & sea is perfectly healthy, that  
 on the shore is unfriendly to the body,  
 and in certain diseases - such as the  
 Asthma & pulmonary Consumption  
 & Rheumatism -  
 of this there <sup>are</sup> many proofs. - It would  
 seem as if a Collision or mixture of  
 Airs was ~~unhealthy~~ <sup>unhealthy</sup> in  
 other cases as well as the one that has  
 been named. I never sickened or pined  
 in the most offensive hospital I ever  
 visited during the late War - and yet  
 I have done both as soon as I have  
 come out of the hospital & breathed  
 the pure Air. It is hard to tell on w<sup>h</sup>:

the unwholesome Quality of the Air on  
 the Seashore depends. ~~Whether~~ <sup>It cannot it be</sup> on the  
 moisture & saline nature of the Seair?  
 But these do not act at Sea at



~~mentioned in this place.~~



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a distance from the shore. But may  
not this owing to the motion of the  
Ship imparting a vigor to the system  
which counteracts the morbid operation  
of the sea air on the shore? If the  
unhealthy quality of the air on the  
seashore does not depend on its saline  
nature - it must be ascribed to its  
mixture with land air, and a new  
compound being formed from it of  
which I can say nothing. I have only  
to add to this head - that the air on  
the seashore is medicinal for all the  
diseases of the body except those I have  
mentioned - viz: Asthma - Consump<sup>n</sup>  
& Rheumatism.

There are several other local  
circumstances, <sup>which affect the air</sup> which deserve to be



V is often the source of Disease, and that  
from the following cause. 1. From its  
being built of green or unseasoned wood.  
The Saps <sup>which</sup> is confined within new boards,  
is composed sometimes of Saccharine, &  
often of fermentable matters, & by heat  
is so changed as to become a source of  
Disease. I ~~took~~ <sup>have taken</sup> notice of this fact in  
speaking of the origin of bilious fevers  
from new Sheds & Soldiers huts. <sup>in the 4th Vol. of my</sup> It is  
<sup>best inquires</sup> only to be prevented by soaking the wood  
or boards in water so as to dislodge the  
Sap from them by means of the  
water, which soon evaporates from them,  
but if retained, is <sup>much left</sup> ~~not~~ disposed to the  
fermentation with the wood. 2. A Dwelling  
house is rendered unhealthy by being built  
of stone recently taken out of the ground,  
& in that state impregnated with matters  
of a vegetable or mineral nature which  
undergo such changes by the action of



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mentioned in this place: A Residence  
in cellars  
under ground is always unhealthy.

Even the servants who spend the day  
only in kitchens soon acquire a  
pale color, and are much disposed

to Consumption & Rheumatism —  
a residence in a hospital has the same effect.  
it is said

2 A <sup>drizzling</sup> house ~~very~~ <sup>✓</sup> ~~plaster~~ <sup>✓</sup> ~~after~~  
produces the same diseases. They have  
been ascribed to the fumes of lime,  
but I should rather suppose they were  
occasioned by the moisture <sup>the</sup> ~~the~~ <sup>clears</sup>  
to the lime. <sup>✓</sup> ~~I have known~~ <sup>heard of one</sup>

<sup>case of sickness from it</sup>  
3 ~~A house so surrounded with trees~~  
~~There is sometimes an unhealthy~~  
~~that the~~ <sup>in certain</sup> ~~you~~ cannot act upon every  
part of them at some time of the  
day is generally unhealthy. Of this  
I have known several instances.  
The diseases produced in this way,



Atmosphere on it as to emit an unwhol-  
-some Vapor. These two sources of disease  
in a newly built house were so universally  
admitted in ancient Rome, that a house was  
never inhabited by ~~the~~ <sup>any</sup> wealthy citizens till  
after it had built ~~one~~ <sup>by</sup> years. 3<sup>rd</sup> a house  
is rendered un healthy <sup>it is</sup> by the moisture, and perhaps  
by the ~~heat~~ by an unwholesome Vapor  
emitted by fresh plaster. A physician of  
a promising Character <sup>about 50 years ago</sup> D<sup>r</sup> Brown died of a  
Consumption in this city contracted from  
going into a newly plastered house. 4<sup>th</sup> By <sup>being</sup> ~~inhabited~~ <sup>two years after</sup>  
being painted. Headache &c from this cause! A  
house is a source of disease from its  
having a close Cellar, connected by a stair  
Case with the Chambers of the house. The  
speedy putrefaction of meat, the green mould  
on bread, the speedy rot on iron kitchen  
utensils, ~~and above the pallid faces of~~  
~~engilt by green wood where kept in them~~  
~~residents who live in little kitchens~~  
<sup>Humble</sup> indicate the unwholesome quality of  
the Air in Kitchen Cellars. From which



have been ascribed to the <sup>night</sup> effluvia  
 of the trees, not being carried off  
 in the day time. But perhaps the  
 dampness of the air may be suffi-  
 -cient <sup>alone</sup> to account for them.

4 There is sometimes an unhealthy-  
 ness in the situation of a house, <sup>or houses</sup>  
 both in towns & country wholly  
 unconnected with any of the cir-  
 -cumstances which have been  
 mentioned. I once knew two <sup>cases of</sup> ~~persons~~  
<sup>malignant</sup> ~~fever~~ which proved fatal  
 in this city in the middle  
 of winter in a small court, <sup>between front & rear in Walnut Street,</sup> in two  
 houses that nearly adjoined each other.  
 Probably from some filth contained in the cellar of  
 one of them. I suspected they were produced by some  
 local effluvia, but I never was  
 able to satisfy myself of the source.



V a fact of a more singular nature, but  
 connected with our subject is related by Vass.  
 -Lewiters. In the year 1713 a fever affected  
 all the Professors - Students & printers of the  
 University of Altdorf <sup>in Franconia</sup> without affecting any  
 one of the inhabitants of the city. These students  
 lived in different parts of the city & used the  
 same diet with the citizens. The <sup>disease in</sup> fever  
 was probably produced by a local exhalation  
 from a privy - a foul cellar, or rototten  
 vegetables near the University. In all these cases,  
 patients sh<sup>d</sup> be advised to change their habitations. p 139. in  
 = stagnates in them. <sup>fact of green wood - four fruit</sup> It is to be prevented  
 in part by Chimneys in a cellar w<sup>ch</sup>  
 promote motion & circulation in the  
 Air, or by having a communication kept  
 up up with the sky only by an external  
 cellar door. <sup>Sometimes cellars are</sup>  
 rendered unhealthy by <sup>inhabiting</sup> ~~many unwholesome~~ air &  
<sup>but Dr Green says from his own exp<sup>s</sup></sup>  
 discharge water from the adjoining cloths.  
 This may be obviated by a hole dug



from ~~where it was derived~~. I  
 have observed something still more  
 unaccountable in our city. on the  
 west <sup>side</sup> of this street between market  
 & arch streets, ten or twelve heads of  
 families died in about eight or  
 nine years, while on the opposite  
 side of the same street only two persons  
 died in the same number of years.

The deaths in the former case were  
 most of them with different diseases.  
 They originated <sup>in the</sup> I have no doubt in one  
 - ~~was~~ this uncommon mortality  
 or more of the causes ~~which~~ of which have been  
 accidental - ? or did it ~~it~~ depend  
 enumerated. ✓  
 on ~~was~~ some morbid effluvia or  
 dampness - or <sup>of</sup> ~~current~~ air which  
 affected one side of the street more  
 than another ? ✓ In such cases it  
 is best to advise our patients to seek new Habitation  
 - ours.



to gravel in it, or a ditch dug around the  
house, <sup>& below the cellar</sup> and arched as to prevent the  
water's evaporating. A house is rendered  
unhealthy from its age when it is made of  
wood, ~~thus~~ for wood when it decays emits  
a vapor which has been known to  
produce an intermitting fever. This is  
taken notice by Dr Hatter. & By small,

~~of the influence of a Thunder, light, darkness,~~  
~~light darkness, change of situation, sound,~~  
~~of the room upon the body.~~ <sup>Earth</sup>  
~~the room~~ ~~various~~ ~~movements~~ ~~of the earth & moon &~~

close, and smoky rooms. To obviate  
smoke doors & windows are frequently  
opened by which means colds are taken  
which often terminate in pulmonary  
Consumption. But ~~of~~ ~~close~~ ~~dark~~ houses  
are unhealthy from the want of ventilation.  
The filth which produces disease is it is true  
not often seen in a parlour, or common  
sitting room. It is hid generally hid from  
the eye in a yard, a cellar - or Closet, &  
the Garret. <sup>secreted</sup> Dead swif considered to



Thus have I pointed all out all the  
 circumstances which are connected <sup>the</sup> with  
 the <sup>situation</sup> air that produce diseases. I have  
 hitherto said nothing of specific con-  
 tagions which are conveyed thro'  
 the medium of the air into <sup>the</sup> human  
 body - I had allotted them to another  
 place, in our syllabus, but they  
 will come in more properly under  
 this head. <sup>go to p: 139 W4</sup> I shall first deliver  
 a few remarks <sup>on the influence of light</sup> on them, I shall present you with  
 a table of the medium duration of  
 human life in all the situations  
 which I have described in a northern  
 and middle climate. — It is  
 taken from Dr Daignan's tables of  
 human life.



~~filth so much a source of~~ It would be a  
good practice if the Inspectors of the ~~sanitary~~  
~~of our cities~~ <sup>in</sup> would, in their visits to  
houses, imitate the Conduct of Dr Swift  
who ~~in entering~~ <sup>after entering</sup> the parlour of his  
friend Mrs Pilkington with whom he was  
invited to dine, refused to sit down, ~~before,~~  
but suddenly walked up her stairs, & examined  
every room, & closet in her house. Upon  
returning into her parlour, he said "I per-  
ceive madam - you are a good house wife.

I give you no credit for the neatness &  
cleanness of your parlour, in which you  
expected to see company - But I have  
found all your rooms & closets to be  
as neat & clean as your parlour. <sup>9th</sup> ~~But~~ Honey  
are ~~highly healthy~~ from sinks in ~~cellar~~ <sup>not properly</sup>  
constructed, & ~~from~~ <sup>your</sup> ~~being~~ <sup>not</sup> ~~improperly~~ <sup>closed</sup> ~~him~~  
~~that have~~ <sup>these</sup> ~~been~~ <sup>in</sup> ~~winter~~ <sup>doors</sup> & ~~doors~~ <sup>are</sup>  
~~10~~ <sup>10</sup> ~~shabby~~ <sup>houses</sup>, like villages are unhealthy  
from the unwholesome quality of the  
water that is used by them. Of this I  
have known a remarkable instance



<u>Situation</u>	northern <sup>134</sup>	middle latitudes.
mountainous	42 — 44	40 — 42
Hilly —	41 — 43	39 — 41
valleys —	40 — 42	38 — 40
forests —	40 — 42	40 — 42
mines and quarries	26 — 28	21 — 23
mount country	40 — 42	39 — 40
Unequal D <sup>o</sup>	38 — 40	36 — 38
varied D <sup>o</sup>	35 — 37	34 — 36
Sandy D <sup>o</sup>	30 — 32	28 — 30
Gravelly D <sup>o</sup>	30 — 32	28 — 30
Stony D <sup>o</sup>	30 — 32	28 — 30
elevated D <sup>o</sup>	39 — 41	— 30 — 32
Islands	24 — 26	22 — 24
flat country	27 — 29	30 — 32
low D <sup>o</sup>	30 — 32	30 — 32
naked D <sup>o</sup>	24 — 25	21 — 22
low D <sup>o</sup>	22 — 23	21 — 22
moist D <sup>o</sup>	21 — 23	23 — 24
marshy D <sup>o</sup>	25 — 26	— 21 — 22







<u>Situation</u>	Northern	& middle latitudes
near & course of great rivers	40 - to 41	38 - to 40
near lakes	24 - to 26	29 - to 30.
Bogs or swamps	25 - to 27	21 - to 32
Sea coast -	25 - to 26	25 - to 26
Heaths	21 - to 22	21 - to 22
Brooms	21 - to 22	21 - to 22
Dry lands	21 - to 22	21 - to 22.

Nothing has been said here of the  
medium of human life in cities,  
probably because the situation of  
cities is affected by all the circum-  
stances which have been mentioned.

- Exclusive of calculations from  
manufactures Dirty Streets &c they  
will be more or less healthy ac-  
cording as they



in the States from front the South side.  
have be built low and as near the ground  
as possible in the country - they are thus  
coolest in Summer, warmest in  
winter. ~~On~~ <sup>a</sup> room in ~~every~~ house is  
cool according to its fire. St Pauls church is  
always cooler by 8° than the smaller  
rooms of surrounding houses. The  
lower the windows, & doors of a house,  
the cooler in Summer & the <sup>warmer</sup> ~~warmer~~ in  
winter. Run back to = 10 : 135 These  
Observations &c



